Vaccines for Children
2016 Vaccine Management Plan

PRACTICE NAME:

PIN (6 DIGITS – E.G. M00L00):

DATE REVIEWED/UPDATED:

(Review/update at least annually or more often as staff changes)

PERSON PREPARING PLAN:

Print or Type Name Title

SIGNATURE OF PERSON PREPARING PLAN:

Signature

PRIMARY VACCINE COORDINATOR:

Name Phone Number

BACK-UP VACCINE COORDINATOR 1:

Name Phone Number

PERSON(S) WITH 24-HOUR ACCESS TO BUILDING:

Name Phone Number

VACCINE MANAGEMENT PLAN

Table of Contents

1 DESCRIPTION

This Vaccine Management Plan template is provided as a guideline for the protection and maintenance of the office's vaccine supply. The responsibilities listed in this plan are those of the primary and back-up vaccine coordinators.

Office staff handling or administering vaccines should be familiar with the **Vaccine Management Plan,** which includes the **Vaccine Storage and Emergency Response Plan** and ensuring vaccines are maintained within the required temperature range.

A copy of the Vaccine Storage and Emergency Response Plan must be posted on all refrigerators/freezers used to store VFC vaccines.

The Vaccine Management Plan must be reviewed and updated annually or more often as staff changes, and contain a "Review Date" to verify the Plan is current.

Primary and Back-up Vaccine Coordinators Responsibilities

Each practice should designate one staff member to be the primary vaccine coordinator and at least one staff member as the back-up vaccine coordinator. Responsibilities of the vaccine coordinator include, but are not limited to the following:

- Ordering vaccines.
- Overseeing proper receipt and storage of vaccine shipments.
- Monitoring the refrigerator and freezer temperatures twice daily (at the beginning of the day and at the close of business) to maintain the required temperature (refrigerator between 2 C and 8 C (35 F and 46 F) and freezer between-50 C and -15 C (-58F and +5 F)); adjusting the temperature of the storage unit as necessary to maintain the required temperature; and recording the temperatures on the **temperature log** (templates available from your District Field Rep or in the CHIRP Document Center under VFC Provider Documents), and storing the temperature log sheets for at least three years.
- Implementing standard procedures in the event of storage temperatures violations.
- Maintaining storage and handling equipment, including adjusting the temperature of a vaccine storage unit and records.
- Rotating vaccine stock so vaccines closer to their expiration date are used first.
- Monitoring expiration dates, on a regular basis, on vaccines and ensuring expired vaccine(s) is/are not administered to patients. If vaccines are within six months of expiration and will not be used, contact your District Field Rep to request transfer of the vaccines to another VFC provider who may be able to use the vaccines.
- Train staff responsible for administering vaccines on proper storage and handling protocols.
- Ensure new employees receive annual training and understand necessary requirements for documenting, administering, and managing vaccines for optimal effectiveness. Documentation of training must be retained and copies provided during site visit (Compliance, Unannounced Storage and Handling, or upon request). Documentation may be a certificate of completion or a log sheet with the staff member's name and date of training.
- VFC coordinators, backup coordinators, and other staff members who will have responsibility for VFC vaccines should complete the Centers for Disease Control and Prevention (CDC) "You Call

The Shots – Module 10 – Storage and Handling and Module 16 – Vaccines for Children Program" online course to ensure each has received individual training on VFC storage practices. The course is available at http://www.cdc.gov/vaccines/ed/youcalltheshots.htm and click on the Vaccine Storage and Handling course. **To obtain a certificate of attendance, you must register for continuing education (CE) credits. You will be able to either select the type of CE credits or select audit only for no CE credits.**

- Place **"DO NOT UNPLUG**" stickers next to wall outlets providing power to the refrigerator and freezer and the circuit breakers. For circuit breakers, the number of the circuit that is active for the unit(s) needs to be marked on the posted sticker, along with names and phone numbers of practice staff with 24-hour access to vaccine storage units.
- Instruct maintenance and/or cleaning personnel **not** to unplug the refrigerator/freezer or switch the circuit breaker off. **If power needs to be shut off, the primary and/or back-up vaccine coordinator needs to be notified so that actions can be taken to safeguard the vaccines inside of the refrigerator and/or freezer**.
- **Notify the ISDH Immunization program immediately of any changes in the medical director, primary vaccine coordinator, or back-up vaccine coordinators by emailing Immunize@isdh.in.gov or by telephone 800-701-0704.**

Annual Training Requirement

Each primary and backup VFC vaccine coordinator is required to complete and maintain documentation of receiving annual VFC education on vaccine storage and handling. Education is available through VFC compliance site visits, VFC educational visits, or through CDC online training, "You Call The Shots – Module 10 – Storage and Handling and Module 16 – Vaccines for Children Program." The course is available online at http://www.cdc.gov/vaccines/ed/youcalltheshots.htm and click on the Vaccine Storage and Handling course. Document all training you have received on the VFC Training Log in the appendix and retain copies of all certificates of completion or certificates of attendance. Copies of all training certificates or proof other training, such as the training log, 2015 VFC compliance site visit acknowledgement of receipt, or 2015 VFC compliance site visit provider follow-up plan, must be reviewed during site visits.

2 VACCINE UNIT EQUIPMENT AND MAINTENANCE, TEMPERATURE MONITORING AND STORAGE PRACTICES

Unit Equipment and Maintenance

The office will ensure it has the appropriate equipment to store vaccine and to maintain proper conditions. The following types of storage units are acceptable:

1. Stand-alone refrigerator.
2. Stand-alone freezer.
3. Combination refrigerator/freezer- using only the refrigerator compartment for vaccine storage (**only applies to providers enrolled prior to January 1, 2015 who have not had to purchase/acquire a new unit**).
4. Pharmaceutical/medical/laboratory grade refrigerator.
5. Pharmaceutical/medical/laboratory grade freezer.
6. Compact (under counter) refrigerator.
7. Compact (under counter) freezer.

CDC recommends providers store vaccines in separate, stand-alone refrigerators or freezer units. Additional information on CDC recommendations for vaccine storage can be located from the American Academy of Pediatrics at https://www.aap.org/en-us/Documents/immunization_vaccinestoragerf.pdf. **Dormitory-style refrigerators are not allowable to store VFC vaccine at any time, even for temporary storage.** Dormitory-style refrigerators do not maintain proper temperatures and pose a high risk of freezing vaccine. A dormitory-style refrigerator is defined as a combination refrigerator/freezer unit that is outfitted with one exterior door that upon opening will expose a freezer compartment within the refrigerator. A dormitory-style unit may be a small unit that sits on top of or under the counter. A dormitory-style unit may also be an older household-size refrigerator with one outside door and the freezer door located within the refrigerator.

Any refrigerator or freezer unit used for vaccine storage must be able to maintain vaccine storage temperatures year-round, be large enough to hold the year's largest inventory, be dedicated only to the storage of vaccines, and **must have a certified and calibrated data logger with a buffered probe inside each compartment used for storing vaccine**.

As of January 1, 2018, the following recommendation will be a requirement for all VFC providers.

1. **All VFC providers must have at least one back-up certified calibrated digital data loggers for continuous temperature monitoring.**

VFC providers receive vaccine at no cost to them. However, the vaccines they receive are purchased with millions of taxpayer dollars. To reduce waste and spoilage of expensive vaccines, the VFC program has guidelines for vaccine storage units.

Equipment Size Recommendations

Office Size	Recommended Equipment Size
Very High Volume 10,000 doses/year	Pharmacy-grade or biologic-grade refrigerator-only units and stand-alone freezer units
High Volume 2,000-10,000 doses/year	Refrigerator-only (16.7 cubic feet minimum) and stand-alone freezer units
Medium Volume 500-2,000 doses/year	Refrigerator-only (11 cubic feet minimum) and stand-alone freezer units OR Pharmacy-grade or biologic-grade under the counter units
Low Volume Less than 500 doses/year	

Refrigerator temperatures must be between 2 and 8 C (35 and 46 F). Ideally, the temperatures should be maintained around 4 C (40 F). Freezer temperatures must be less than -15 C (5 F).

Acceptable Storage Units

The following table lists the acceptable types of storage units as of January 1, 2016.

Grade/Type	Description	Rating
Pharmaceutical grade/ purpose-built units (stand-alone)	Specifically engineered to maintain consistent temperatures throughout the unit. Purpose-built or pharmacy-grade refrigerators can be compact, making them ideal for small offices.	Best
Pharmaceutical grade/ purpose-built units (combination) *This does NOT include household combination units.	Pharmaceutical grade and purpose-built units are specifically engineered to maintain consistent temperatures throughout the unit. These units have more than one compressor allowing for better and separate temperature control of the refrigerator and freezer compartments. Manufacturers and distributors of pharmaceutical/medical grade/purpose-built units may include Aegis, American Biotech Supply, Compact Appliance, Fisher Scientific, Follett, Helmer, Lab Research Products, Living Direct, Migali Scientific Refrigeration, Sanyo Biomedical, Sun Frost, Thermo Scientific, and others. Storage units often found at discount retail stores or big box retailers are probably **not** pharmaceutical/medical grade/purpose-built units.	Best
Commercial units* (stand-alone)	Usually intended to store food and beverages and are often larger and more powerful than household units. These units are not specifically designed to store biological materials.	Good
Household* (stand-alone)	Usually smaller than commercial units and are intended for use in small offices and in homes, typically for food storage. Like commercial units, they are not designed to store biological materials.	OK

*These units may require additional water bottles (refrigerator) or frozen cold packs (freezer) to maintain stable temperatures. Consult your District Field Representative for guidance.

Unacceptable Storage Units

The following storage units do not meet VFC specifications and may not be used to store VFC vaccines for any length of time.

Grade/Type	Description	Rating
Dormitory-style and bar-style combined refrigerator/freezers	These units pose a significant risk of freezing even when used for temporary storage.	Unacceptable
Manual defrost (cyclic defrost) refrigerators	These models have an exposed vertical cooling plate at the back of the refrigerator. They have significant temperature variation and risk freezing vaccines. Manual defrost refrigerators are most likely going to be household combination units, small dorm size combination units, or older single door units (essentially a dorm style – one outside door with the freezer compartment located within the refrigerator – but larger like the size of a household unit). These types of units are not allowable.	Unacceptable
Convertible refrigerator-only units	These units have an internal switch that converts an "all-refrigerator unit" to an "all freezer" unit.	Unacceptable
Cryogenic Freezers	These freezers reach temperatures well **below** -50.0 C (-58.0 F), too cold for frozen vaccines. The recommended temperature range for frozen vaccines is between -50.0 C and -15.0 C (-58.0 F and 5.0 F).	Unacceptable

The unit must be placed in a well-ventilated room with sufficient space (at least 4 inches) around the sides and top for air circulation. Ensure the refrigerator/freezer is plugged into an outlet in a protected area where it cannot be accidentally disconnected.

- The use of a "safety-lock plug" or an outlet cover is strongly recommended to reduce the chance of the unit becoming inadvertently unplugged.
- Label the refrigerator, electrical outlets, and circuit breakers on the power circuit with information that clearly identifies the perishable nature of vaccines and the immediate steps to be taken in case there is an interruption of power.
- Place "DO NOT UNPLUG" signs by the electrical outlet for the refrigerator and freezer, and circuit breaker panel to ensure that the power is not turned off.
- Instruct maintenance and/or cleaning personnel not to unplug the refrigerator and freezer or switch off the circuit breaker.
- If the power needs to be shut off for any reason, the primary and/or back-up vaccine coordinator needs to be contacted immediately to ensure the vaccine inside of the refrigerator and/or freezer can be safeguarded.

Regular maintenance is recommended to ensure proper operation, to maintain required temperatures, and to extend the useful life of the appliance. Maintenance of the refrigeration unit and freezer include:

- Cleaning the unit once a month to discourage bacterial and fungal growth.
- Periodically vacuuming the dust from the exterior coils.
- Periodically checking to make sure the seals are intact.
- Checking the inside walls of the freezer compartment weekly for accumulation of frost – defrost if necessary.

- Keeping a **logbook** (see appendix) to indicate the date(s) of routine maintenance tasks, date(s) of any repairs or servicing, and the name of the person and/or company performing each of these tasks.

It is normal for ice and frost to accumulate inside the freezer and even in refrigerator compartment depending on the type of storage unit. A thin layer of frost does not affect the cooling performance, but a thick layer will affect the unit's ability to maintain temperature efficiently and will eventually cause unit failure. If defrosting is necessary every month or more frequently, check the seals on the doors or call a technician for necessary maintenance. The following is a suggested procedure for defrosting a manual defrost unit:

1. Check the inside walls of the freezer weekly
    a. When frost has accumulated to a thickness of approximately 1 cm, the unit will require defrosting.
    b. The more the unit is opened and closed, the quicker frost will build.
    c. Follow the manufacturer's specific recommendations for defrosting a freezer.
2. Remove all vaccine (from both compartments if using a combination refrigerator/freezer).
3. Place all vaccine in an alternate storage unit(s) that has been monitored ahead-of-time to ensure proper temperature ranges have been reached and will maintain correct temperatures.
4. Turn off the power to the unit you are defrosting and unplug the unit.
5. Remove all frozen packs (keep frozen if possible).
6. Keep the freezer door open to allow the frost to melt.
7. Remove loose ice by hand to speed the process, but do not use sharp tools.
8. Defrosting time can be reduced by placing a container of warm water (not boiling hot) inside the compartment.
9. Once the frost is melted completely, clean the freezer compartment thoroughly and wipe dry.
10. Clean refrigerator compartment as well.
11. Connect the power, ensure that the thermostat is turned on and set correctly.
12. Wait for temperature to stabilize at the proper range before returning vaccine to defrosted unit. This may take hours or a day depending on the unit, so monitor with a calibrated temperature monitoring device.
13. Monitor and record the temperature frequently (every hour for several hours).
14. Re-stock the unit with vaccine once the temperature is stabilized.
15. Continue to monitor the temperature after the vaccine is returned to the unit.

For more information on vaccine storage and handling, please refer to the CDC Vaccine Storage and Handling Toolkit at http://www.cdc.gov/vaccines/recs/storage/toolkit/.

Vaccine Storage Unit Temperature Monitoring

The recommended method to ensure a refrigerator or freezer is maintaining the proper temperature for vaccine storage is to check and to record the current temperature at least twice each workday and min/max once each workday. The office must adhere to the following guidance:

- **Each refrigerator and freezer must have a working calibrated data logger, with glycol or buffered probe, certified in accordance with the National Institute of Standards and**

Technology (NIST) or a laboratory recognized by NIST, placed in a central area[1] inside each compartment used for storing vaccine.

- **All VFC providers are required to have a certified calibrated back-up data logger, with glycol or buffered probe, on site.**
- Calibration testing of data loggers must be performed at least every two years from the last calibration testing date (date certificate issued).

Providers must have a data logger in each compartment of each unit, with a back-up data logger available (at least one per practice). CDC recommends use of a digital data logger data logger with a detachable probe in a buffered material (e.g., glycol) with continuous monitoring capabilities. The temperature should be easily readable from the outside of the unit. Additional recommended features include:

- Alarm for out-of-range temperatures
- Current, minimum and maximum temperatures
- Low battery indicator
- Accuracy of +/- 1 F (0.5 C)
- Memory stores at least 4,000 readings; device will not write over old data and stops recording when memory is full
- User programmable logging interval (or reading rate)

CDC strongly recommends that clinics that are routinely closed for more than two (2) consecutive days, and do not have staff that assess and record temperatures twice a day on days when the office is closed, use the current CDC guidance for temperature monitoring equipment. CDC recommends use of a continuously monitoring and recording digital data logger with downloadable capabilities and the characteristics listed above.

Additional information on CDC recommendations for certified calibrated data loggers and digital data loggers can be located from the American Academy of Pediatrics at https://www.aap.org/en-us/Documents/immunization_dataloggers.pdf.

Providers are responsible for maintaining current Certificates of Traceability and Calibration Testing[2]. Calibration testing of all data loggers must be performed at least every two years from the last calibration testing date (date certificate issued). Provider must keep the certificate of calibration for each data logger and back-up data logger to be reviewed during VFC compliance site visits.
CDC will allow calibration testing and traceability to be performed by a laboratory accredited by an ILAC MRA signatory body OR as an alternative by a laboratory or manufacturer that provides documentation that demonstrates that calibration testing performed meets ISO/IEC 17025 international standards for calibration testing and traceability. **Between the two options, CDC recommends that testing be performed by ILAC accredited laboratories.** An ILAC MRA accredited laboratory is the easiest way to identify that the instrument has been tested correctly according to international standards.

[1] In a pharmaceutical or purpose-built unit (i.e. designed specifically to store vaccines), CDC recommends data logger placement in a central location, but placement in other locations may be suitable because pharmaceutical units maintain more consistent temperatures throughout the unit.

[2] Certificate of Traceability and Calibration Testing (also known as Report of Calibration) is a certificate that informs the user of a data logger's level of accuracy compared to a recognized standard based on testing by the National Institute of Standards and Technology (NIST).

Calibration testing performed by an ILAC accredited laboratory

- ILAC accredited laboratories are (logos are shown below):
  - The American Association for Laboratory Accreditation (A2LA).
  - Laboratory Accreditation Bureau (L-A-B).
  - ANSI-ASQ National Accreditation Board (ACLASS).
  - International Accreditation Service (IAS).
  - Perry Johnson Laboratory Accreditation, Inc. (PJLA).
  - National Voluntary Laboratory Accreditation Program (NVLAP).

ILAC/MRA Signatory body accredited Laboratory

The Following Table lists the accredited laboratories

A2LA	L-A-B	ACLASS	IAS	PJLA	NVLAP

- The certificate of calibration must have these items:
  - Name of device (optional)
  - Model number
  - Serial number
  - Date of calibration (report or issue date)
  - Measurement results indicate unit passed testing: This may be listed under "Pass/Fail," "In Tolerance," or "In Tol."
  - The documented uncertainty is listed and within suitable limits (recommended uncertainty = +/- 1F or 0.5 C): This may be listed under "Uncertainty," "±U," or "+/-."

Calibration testing not performed by an accredited laboratory:

- These manufacturers or laboratories must provide a Certificate of Traceability or Report of Calibration Test that must include the following elements:
  - Name of device (optional)
  - Model number
  - Serial number
  - Date of calibration (report or issue date)
  - Measurement results indicate unit passed testing: This may be listed under "Pass/Fail," "In Tolerance," or "In Tol."
  - The documented uncertainty is listed and within suitable limits (recommended uncertainty = +/- 1F or 0.5 C): This may be listed under "Uncertainty," "±U," or "+/-."
  - Statement that calibration testing conforms to ISO 17025

Record the date(s) the certified data loggers were last calibrated and/or purchased. Add additional units as necessary to represent all vaccine storage units.

Unit	Location of Unit	Date of Calibration	Calibration Due Date
Refrigerator #1			
Refrigerator #2			
Refrigerator #3			
Refrigerator #4			
Freezer #1			
Freezer #2			
Freezer #3			
Freezer #4			
Backup #1 ***(required)***			
Backup #2			

- Each data logger must have a manufacturer's certificate indicating it has undergone calibration against a reference standard from an appropriate agency, such as the National Institute of Standards and Technology (NIST) or a laboratory recognized by NIST.
- **Keep a copy of the manufacturer's certificate of calibration in your files for review during VFC compliance site visits; ensure that calibration is renewed prior to the stated certification expiration.** Calibration testing of data loggers must be performed at least every two years from the last calibration testing date (date certificate issued).
- Place the data logger probe in the center of the unit[3], among the vaccine supply, and away from the coils, walls, floor, and fan in order to obtain a true temperature reading. Ensure the probe remains upright; placing the probe in a specimen cup can facilitate this.
- The data logger must be visually checked and the temperatures manually recorded twice a day: once in the morning and again near the end of the business day, ensuring the refrigerator temperature is between 2 C and 8 C (35 F and 46 F), and the freezer temperature is -15 C or lower (5 F or lower). The temperatures must be recorded on a temperature log sheet (see CHIRP Document Center) and maintained, in an ongoing file of temperature logs, for a period of three years.
- Post a temperature log sheet/emergency response sheet on the vaccine storage unit door or nearby in a readily accessible area.
- Take immediate action to correct improper vaccine storage conditions, including inappropriate exposure to storage temperatures outside the recommended range. In the event vaccine has been stored outside of the recommended temperature range or if the refrigerator/freezer is not working properly, document actions taken. Notify the Indiana Immunization Program via your District Field Representative.

[3] In a pharmaceutical or purpose-built unit (i.e. designed specifically to store vaccines), CDC recommends data logger placement in a central location, but placement in other locations may be suitable because pharmaceutical units maintain more consistent temperatures throughout the unit.

Vaccine Storage Practices

To ensure that vaccines are kept at the correct temperatures, refer to the practices listed below and the diagrams:

- Store extra frozen water bottles, ice packs and/or gel packs along the walls, back, and door of the freezer compartment. This helps keeps a steady temperature during the automatic defrosting cycles, provides additional reserves of cold in the event of a power failure, and serves as visual reminders where vaccines should not be stored.
- Store water bottles against the inside walls, in crisper bin(s) (if so equipped), and door of the refrigerator. This helps maintain a stable cold temperature in the event of a power outage or if the door is opened frequently, and serves as a visual reminder where vaccines should not be stored.
- Never store food, beverages or specimens in the same units as vaccines. This interferes with proper temperature control and may contaminate vaccines. Frequently opening the refrigerator/freezer door can lead to temperature variations, which could affect vaccine efficacy.
- Store vaccines that require refrigeration in the middle of the refrigerator compartment away from the coils, walls, floor, and cold air vent. Do not store them in the doors, air-tight containers, or in the vegetable bins. Offices may want to consider removing vegetable crisper bins so staff does not place vaccines inside them.
- **Keep vaccines in their original packaging with the lids in place until ready for administration and stacked in rows with vaccine of the same type**. Keeping vaccines in their original packaging with lids intact prevents exposure to light and prevents mixing lots numbers and expiration dates.
- Bins, baskets, or some other type of uncovered containers can be used to store the vaccines. There should be space between the vaccine stacks or containers to allow for air circulation around the vaccines. These measures will help to avoid confusion between vaccines and provide for air circulation around and through vaccine stacks for even cooling. Do not overstock the unit because this will impede cold air circulation and can result in temperature fluctuations that may expose the vaccines to inappropriate temperatures.
- Store diluents as directed in manufacturer's product information.
- Store refrigerated diluents with corresponding vaccine (these diluents may contain vaccine antigen).
- Store vaccines that require freezer storage in the middle of the freezer compartment, away from the walls, coils, and peripheral areas.
    - Develop and maintain complete, accurate and separate records for both VFC and private purchased vaccines. **Label "VFC" vaccines and keep separate from the private vaccine supply.**
- Rotate vaccine stock and diluents on a regular basis by placing vaccines with shorter expiration dates in front of those with longer expiration dates; check expiration dates of the vaccines weekly for short-dated vaccines and diluents.
- Keep vaccines organized. Indicate on the label of each multi-dose vial the date and time it was reconstituted or first opened. Refer to the package insert for expiration date.
- Open only one vial, or box, of a particular vaccine at a time to control vaccine usage and allow easier inventory control; leave the vaccine in its original box with the lid intact to prevent exposure to light.
- Store vaccine products that have similar packaging in different locations to avoid confusion and medication errors.

- ISDH suggest coordinators post a sign on the refrigerator door showing which vaccines should be stored in the refrigerator and which should be stored in the freezer, such as the sign shown on page 13 of the CDC Vaccine Storage & Handling Toolkit (http://www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf).
- **Multi-dose vials should not be discarded 28 or 30 days after opening.** Providers who discard open multi-dose vials after 28 or 30 days may be required to replace the wasted vaccines, according to the Vaccine Loss and Replacement Policy.

Multi-dose vials
Opened vials of multi-dose vaccines should **NOT** be wasted before the manufacturer's expiration date. Multi-dose vials of vaccines have different storage and handling requirements than multi-dose vials of medications.

The Joint Commission has specifically addressed the issue of discarding open multi-dose vaccines in the Joint Commission Standards Frequently Asked Questions (available at http://www.jointcommission.org/standards_information/jcfaqdetails.aspx?StandardsFAQId=723&StandardsFAQChapterId=10):

Q. *Do vaccines need to follow the 28 day rule?*

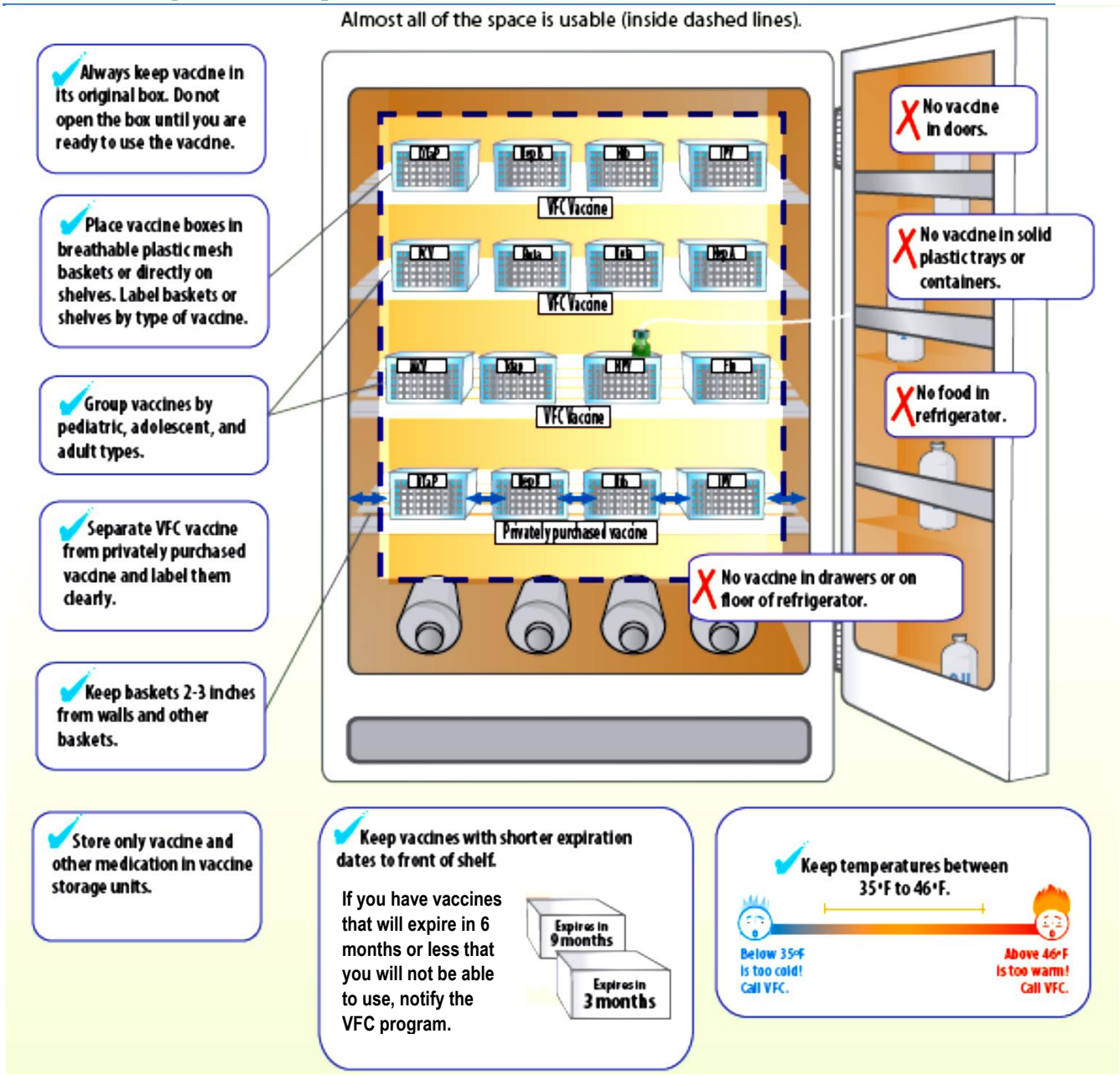
A. ***Currently, vaccines are exempted from this requirement.*** *The CDC Immunization Program states that vaccines are to be discarded* ***per the manufacturer's expiration date****. The Joint Commission is applying this approach to all vaccines (whether a part of the CDC or state immunization program or purchased by healthcare facilities) with the understanding that the vaccines are stored and handled appropriately (correct temperature is maintained, frequency of temperature checks, etc.). Following the guidelines provided in the package insert is very important to assure integrity of the vaccine.*

According to the General Recommendations on Immunization of the Advisory Committee on Immunization Practices, published January 28, 2011, page 19, "For multi-dose vials that do not require reconstitution, doses that remain after withdrawal of a dose can be administered until the expiration date printed on the vial or vaccine packaging if the vial has been stored correctly and the vaccine is not visibly contaminated, unless otherwise specified by the manufacturer." CDC MMWR Vol 60 No 2 January 28, 2011 and available at http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf.

"*The Epidemiology and Prevention of Vaccine-Preventable Diseases: The Pink Book: Course Textbook - 13th Edition (2015)*" (available at http://www.cdc.gov/vaccines/pubs/pinkbook/vac-storage.html) states, " A multi-dose vial of vaccine that has been stored and handled properly and is normal in appearance can be used through the expiration date printed on the vial unless otherwise stated in the manufacturer's product information."

Sanofi Pasteur has confirmed that multi-dose vials of Polio that have been opened and stored under proper conditions may continue to be used through the products documented expiration date on the vial or on the product box.

Vaccine Refrigerator Setup



Vaccine Freezer Setup

✔ Place vaccine in breathable plastic mesh baskets and clearly label baskets by type of vaccine.

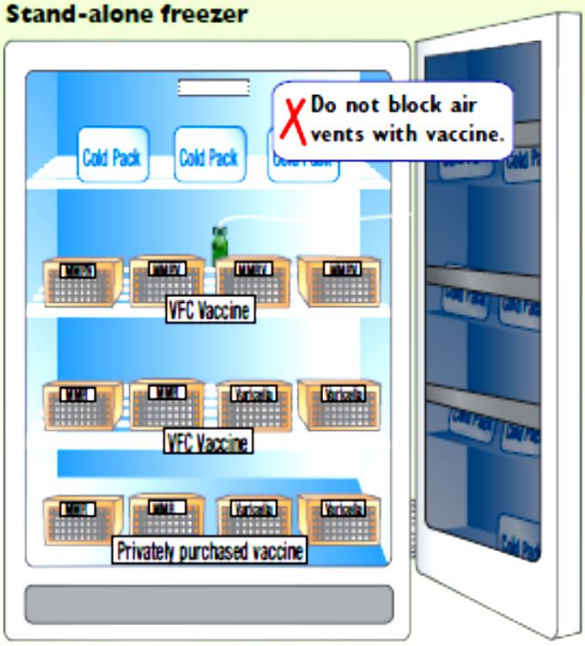
✔ Separate the VFC vaccine supply from privately purchased vaccine.

✔ Keep vaccines with shorter expiration dates to front of shelf.

If you have vaccines to expire in 6 months or less that you will not be able to use, notify the VFC program.

✔ Keep temperatures 5°F or colder.

Stand-alone freezer



Chest freezer

3 VACCINE STORAGE EMERGENCY RESPONSE PLAN AND ROUTINE TRANSFERS

Vaccine Coordinators must take immediate action when a refrigerator or freezer is not storing vaccines at the appropriate temperature. **Please report any temperature excursions to your District Field Representative as soon as the incident has been discovered.** District Field Representatives will ask that you contact the vaccine manufacturer to obtain stability data anytime VFC vaccines are stored outside of the recommended temperature range, such as a result of a power failure, the refrigerator door being left open, temperature was too cold or too warm, refrigerator plug was pulled, or any other situation which would cause improper storage conditions. Immediate action is required when a refrigerator or freezer is not storing vaccines at the appropriate temperature.

Short-Term Power Outage

Most refrigerated vaccines are relatively stable at room temperature for limited periods of time. The measles, mumps, and rubella (MMR) vaccine and varicella (Varivax) vaccine are very sensitive to elevated temperatures.

- If you are certain the power has or will only be off for a few minutes, tape the freezer door and refrigerator doors shut so no one inadvertently opens the doors and allows cold air to escape. It also helps seal the door in the event the door seal is worn. Record the time.
- When the power is restored, record the time, length of time the power has been off and the maximum temperature inside of the refrigerator and freezer. This will provide data on the maximum temperature and maximum duration of exposure to elevated temperatures (if applicable). **If temperatures are outside of the recommended range, contact your District Field Representative.**

Long-Term Power Outage

Situations can arise at inopportune times when power cannot be restored immediately; planning ahead is crucial. Staff must take the following steps:

- Before transporting the vaccine, **always notify your District Field Representative of the incident and need to follow your emergency response plan.**
- Identify a local provider (hospital, medical center, etc.) that has back-up generator abilities that could be used as an alternate vaccine storage location and is willing to take responsibility for your vaccine.
- Record the room temperature and inside temperature of the refrigerator and freezer and call the alternate storage location to ensure they have power or that their generator is working prior to transferring vaccine.
- Utilize appropriate packing materials to safely transport or temporarily store vaccine.
- Staff relocating vaccines off-site due to power outage or similar situation should see where the vaccines will be stored at the off-site location. **Do not** pass them off to the off-site facility's staff and assume they will be properly stored. It is **your responsibility** to ensure the vaccines are placed properly within the off-site storage unit(s).
- Transfer the vaccine, following proper "cold chain" procedures, to a functioning unit at one of the previously identified alternate storage locations.
- If you are concerned about the exposure or efficacy of any of your vaccine stock, do not administer the vaccine until you have consulted with the vaccine manufacturer's quality control office.

Routine Vaccine Transfers

CDC discourages regular transport of vaccines. The VFC program prefers that vaccines remain at the original location where they were initially delivered to avoid a possible break in the cold chain rendering the vaccine non-viable.

It is critical to maintain the cold chain when transporting vaccine to and from the alternate vaccine storage facility. To ensure efficacy of biologics, follow the practices listed below:

- **VFC providers must obtain prior approval before transferring any VFC vaccine to another VFC provider. Consult your District Field Representative and/or the Director of Vaccine Operations should you need to transfer vaccines.**
- **Providers must allow up to ten business days for transfer approval requests to be reviewed.**
- Utilize appropriate packing materials to safely transport or temporarily store vaccine.
- Prioritize vaccine packing list, identifying which vaccines to pack first. Pack and transport all vaccine or, if that is not possible, determine the types and amounts to save (e.g., save only the most expensive vaccines to minimize dollar loss or save some portion of all vaccines to ensure a short-term, complete supply for resuming the vaccination schedule). Give the first priority to those vaccines which would be the most expensive to replace.
- Utilize appropriate coolants to ensure biologics are kept at the correct temperature during transport. If vaccines are to be moved, ensure they are packed in an insulated container with cold packs or freezer packs as appropriate.
- Do not allow vaccines normally kept at refrigerated temperatures to come into direct contact with cold packs straight from the freezer.
- Keep a data logger in the transport container and note the temperature when you place the vaccine in the alternate storage facility and the time. This will alert staff how long the vaccine was at less than ideal temperature.
- If the temperatures go out of range, notify your District Field Representative.
- Continue to record the temperature of the vaccine at the alternate storage facility twice a day to assure viability of vaccine.
- Until the provider receiving the vaccine transfers signs the transfer form acknowledging receipt of the vaccines, the transferring facility is held responsible for the vaccines.
- **The vaccine manufacturer does not recommend transporting varicella-containing vaccines (MMRV, VARIVAX).** Providers must receive pre-approval before transporting varicella-containing vaccines. Consult your District Field Representative and/or the Director of Vaccine Operations should you need to transfer vaccines. If these vaccines must be transported, CDC recommends the following transportation guidelines:
    - Transport only in a portable freezer unit that maintains the temperature between -58°F and +5°F (-50°C and -15°C).
    - *Use of dry ice is not recommended, even for temporary storage or emergency transport. Dry ice may subject varicella-containing vaccines to temperatures colder than -58°F (-50°C).*
    - **All requests for varicella transfer will be reviewed on a case-by-case basis to ensure transportation guidelines are followed.**

Transfer of vaccines should only occur for the following reasons:

- Vaccine is six months or less from expiration date and unable to be used by provider prior to expiration date.

- An area outbreak has resulted in unexpected surge of walk-in patients.
- Clinic closure requiring redistributing vaccines to other VFC providers.
- Seasonal clinic needing to transfer vaccine to other VFC providers at end of time facility will be open. (i.e. School Health Clinic)

Short term storage at another location because of an emergency is NOT a transfer and does not require pre-approval by the VFC program, as the vaccines will be moved back to the original office once the outage is over. Short term storage at another location due to an emergency DOES NOT require pre-approval by the VFC program. Vaccine should be transferred to a location identified in the emergency management plan in accordance with proper "cold chain" procedures.

Providers needing VFC vaccine sooner than the ten business days it could take for a vaccine transfer to be approved should submit a vaccine order. Transfers should be done on a rare basis and only for the reasons stated above. Vaccines should remain with the original location it was delivered to if at all possible, to avoid a possible break in the cold chain rendering the vaccine non-viable.

Vaccine Transportation Guidelines

Vaccine Transportation Recommendations

- CDC discourages regular transport of vaccines. The VFC program prefers that vaccines remain at the original location where they were initially delivered to avoid a possible break in the cold chain rendering the vaccine non-viable.
- The shipment of vaccines by a provider through a commercial carrier is not allowed due to the potential risks to the cold chain.
- Providers must maintain the vaccine cold chain at all times to protect the vaccine potency.
- If you cannot ensure the vaccine has been **stored** under proper conditions to maintain the cold chain, then DO NOT transport the vaccines.
- If you cannot ensure vaccines are **transported** under proper conditions to maintain the cold chain, then DO NOT transport the vaccines.

Vaccine Transportation Standard Operating Procedures

1. Vaccines are attended at all times during transport.
2. Vaccines are never placed in the trunk of a vehicle.
3. Vaccines are delivered directly to the facility.
4. Receiving facility promptly unpacks and appropriately stores vaccines.
5. Use a calibrated temperature monitoring device with continuous monitoring and recording capabilities during transport.

Varicella-Containing Vaccines

The vaccine manufacturer does not recommend transporting varicella-containing vaccines (MMRV, VAR). If these vaccines must be transported, CDC recommends the following transportation guidelines.

- Transport only in a portable freezer unit that maintains the temperature between -58°F and +5°F (-50°C and -15°C).

  Use of dry ice is not recommended, even for temporary storage or emergency transport. Dry ice may subject varicella-containing vaccines to temperatures colder than -58°F (-50°C).

- ISDH will review requests to transport varicella on a case-by-case basis to ensure transportation guidelines are followed.

Packing Vaccines for Transport

Refrigerated vaccines (see the Packing Order Diagram on page 21):

1. Supplies Needed:
    - Portable refrigerator unit.
        - If a portable refrigerator unit is not available, a hard-sided insulated cooler with at least 2-inch walls may be used if it can maintain the recommended temperature range (between 35°F and 46°F or 2°C and 8°C).

    - Frozen water bottles
        - Use 16.9 ounce bottles for medium/large coolers or 8 ounce bottles for small coolers (enough for 2 layers inside cooler).
        - Do NOT reuse coolant packs from original vaccine shipping containers, as they increase the risk of freezing vaccines.
    - Insulating material
        - Insulating cushioning material – Bubble wrap, packing foam, or Styrofoam ™ for a layer around vaccines at least 1 inch thick. Do NOT use packing peanuts or other loose material that might shift during transport.
        - Corrugated cardboard – cut to fit interior dimensions of cooler(s).
    - Temperature monitoring devise – A digital data logger with buffered probe is preferred and will be required in 2017. The temperature monitoring device must have a probe in buffered material, accuracy of +/- 1 F (+/-0.5 C), with a current and valid certificate of calibration testing. Pre-chill for at least 5 hours in the refrigerator. A temperature monitoring device currently stored in a refrigerator can be used, as long as there is a device to measure temperatures for any remaining vaccines.

2. Pack for Transport
    - Properly prepare and pack frozen water bottles
        - Put frozen water bottles in sink filled with several inches of cool or lukewarm water or under running tap water until you see a layer of water forming near surface of bottle.
        - Check each bottle by rotating it in your hand. The bottle is properly conditioned if the ice block inside spins freely.
        - If the ice “sticks,” put the bottle back in water for another minute.
        - Dry each bottle.
        - Line the bottom of the cooler with a single layer of prepared water bottles.
        - Do NOT reuse coolant packs from the original vaccine shipping container.
    - Insulating material
        - Place 1 sheet of corrugated cardboard over the water bottles to cover them completely.

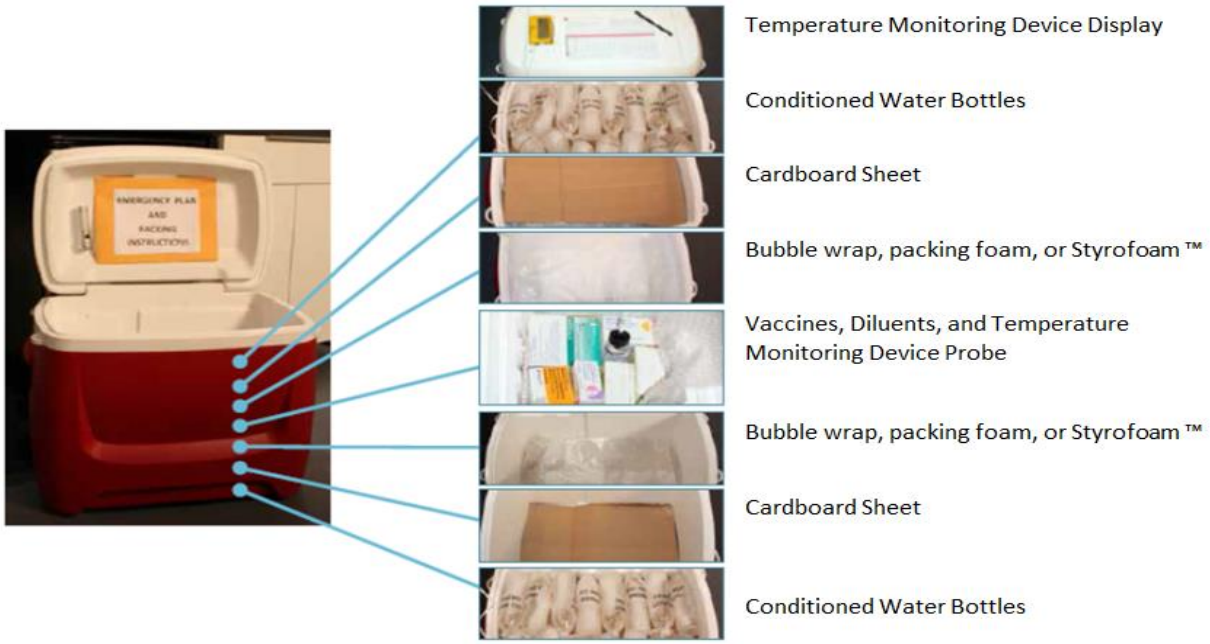
- Place a layer of bubble wrap, packing foam, or Styrofoam ™ on top (the layer must be at least 1 inch thick and must cover the cardboard completely).

- Vaccines – Stack boxes of vaccines and diluents on top of the insulating material.
- Temperature monitoring devise – When the cooler is halfway full, place the digital data logger buffered probe in center of the vaccines, but keep the digital data logger display outside of the cooler until finished load.
- Vaccines – Add remaining vaccines to the cooler, covering the digital data logger probe.
- Insulating material
  - Cover the vaccines with another 1 inch layer of bubble wrap, packing foam, or Styrofoam ™.
  - Another sheet of corrugated cardboard may be needed to support the top layer of water bottles.
- Water bottles – Place remaining prepared water bottles on top of insulating material and close cooler lid.
- Temperature monitoring device – Place the data logger display on the outside of the cooler, if possible. Record the date, time, temperature, and your initials on a temperature log. If properly packed, this will maintain temperature for up to 8 hours.

3. Arrive at Destination
   - Before opening the cooler – Record the time, date, data logger readout temperature, and your initials on a vaccine temperature log.
   - Storage – Transfer the boxes of vaccines quickly to the storage refrigerator.
   - Troubleshooting – If there has been a temperature excursion, complete a vaccine incident report and contact the vaccine manufacturers. Label the vaccines "Do Not Use" and store at the appropriate temperatures until a determination on viability is made.

4. Packing Order Diagram
   - Place a layer at least 2 inches of "conditioned" coolant packs in the transport container first.
   - Place an insulating barrier on top of the coolant packs (bubble wrap, Styrofoam pellets).
   - Place a calibrated data logger (with a buffered data logger probe) on top of the barrier next to the vaccines.
   - Stack the vaccines on top of the barrier and data logger, ensuring the vaccines do not touch the coolant packs.
   - Place another insulating barrier layer on top of the vaccines.
   - Place another layer of "conditioned" coolant packs on top of the insulating barrier layer, ensuring there is no direct contact between the coolant packs and the vaccines.
   - Place a final insulating barrier layer (at least 2 inches) on top of the coolant packs along with an inventory list of the vaccines in the container.

Packing Order Diagram



4 VACCINE ORDERING, ACCOUNTABILITY, INVENTORY, RECEIVING, AND BORROWING

Vaccine Ordering, Accountability and Inventory

- Providers should order vaccine in accordance with actual vaccine need; avoid stockpiling or build-up of more than a four to six week supply.
- **Providers should order enough vaccine inventory to last four weeks, but no more than three months.**
- Orders take seven to ten business days from submission of order to vaccine delivery. Varicella containing vaccine orders may take up to 14 business days from submission of order to vaccine delivery.
- All vaccine orders are submitted through VTrckS or the Vaccine Order Management System (VOMS) in CHIRP.
- Providers must have the following information in CHIRP to submit a vaccine order:
    - Patient records on how each dose of VFC vaccine was administered either entered manually in CHIRP or transmitted from EMR data
- Providers must have the following information in VTrckS or VOMS
    - Delivery hours, with office hours at least one day a week and four hours per day on a day other than Monday.
- All Indiana VFC providers must provide patient-level data on the administration of VFC vaccines. This patient-level data can either be manually entered directly into CHIRP or can be electronically transmitted to CHIRP from the provider's electronic medical record (EMR) system via HL7 messaging. VFC providers not in compliance will not be able to participate in the VFC program.

Receiving Vaccine

Vaccines ordered from the Indiana Immunization Program are typically delivered on Tuesdays, Wednesdays, Thursdays and Fridays via an express carrier. Clinics must include delivery-receipt hours with each vaccine order via VTrckS or VOMS. Varicella-containing vaccines are shipped separately from other vaccines directly from the manufacturer (Merck). It is important to notify ISDH when there are changes to shipment times at the facility. Facilities are expected to be able to receive vaccines at least one day per week (other than Monday) for at least four consecutive hours during the day. Inform all staff (including the front desk) how they need to notify the Vaccine Coordinator or Back-up Coordinator when a vaccine deliver arrives and educate all staff on the importance of proper vaccine storage.

Upon arrival of the vaccine shipment, these procedures must be followed:

1. **Open the shipping container immediately upon delivery** and examine the contents for signs of physical damage and possible out of range temperatures.
2. **WITHIN TWO HOURS OF VACCINE DELIVERY: If any damage, excessive shipping time, cold chain breach has occurred, provider must IMMEDIATELY notify McKesson Specialty Distribution at (800) 637-2579 and the Indiana Immunization Program.**
    - **When calling McKesson about a vaccine delivery:** Expect that staff will ask about temperature indicators if anything is wrong (cold chain breach indicated). Provider staff should store the vaccine appropriately and maintain the shipment packing list. Ensure

that temperature logs are maintained for the vaccine in question. ISDH, CDC, and/or McKesson Specialty **MAY** ask for this paper work.

3. **With each vaccine delivery, check the actual vaccines received against the shipping invoice to verify all vaccines were received.** Compare the original order against what was received. **If there is a discrepancy with the order, provider must immediately notify McKesson Specialty Distribution at (800) 637-2579 and the Indiana Immunization Program**
4. Make sure diluents that accompany MMR, MMRV, and varicella match the amount of vaccine received.
5. Place the new vaccines into the refrigerator and/or freezer immediately with the shortest expiration dates in the front. Separate the VFC vaccines from the private supply by tagging the VFC vaccines and placing them in a separate labeled area of the refrigerator and/or freezer. **Vaccines should be kept in their original packaging with the lids in place until ready for administration and stacked in rows with vaccine of the same type**.
    - Store refrigerated diluents with corresponding vaccine (these diluents may contain vaccine antigen).

VFC Vaccine Borrowing

VFC enrolled providers are expected to maintain adequate inventories of vaccine for their privately insured and VFC eligible patients. **VFC vaccine cannot be used as a replacement system for a provider's privately purchased vaccine inventory.** The provider must ensure their VFC vaccine supply is adequate to meet the needs of the provider's VFC eligible patients.

The Indiana VFC program does allow non-routine borrowing of VFC vaccine.

- Borrowing between two inventories of vaccine in specified situations must be rare.
- Documentation must occur when any vaccine is borrowed regardless of inventory origin (e.g. VFC to Private or Private to VFC).
- The Borrowing Report is the only form of acceptable documentation and it must specify an approved reason for vaccine borrowing:
    - Vaccine shipment delay (public or private)
    - Vaccine not useable on arrival (public or private)
    - Ran out of vaccine between orders [not due to shipping delays] (public or private)
    - Short dated vaccine from one stock used on a patient with the opposite eligibility (public or private)
    - Accidental use of vaccine from one stock on a patient with the opposite eligibility (public or private)
    - Replacement of private dose with VFC when insurance plan did not cover vaccine (public)

Please note: *for seasonal influenza vaccine, providers may use private stock seasonal influenza vaccine to vaccinate VFC eligible children if VFC seasonal influenza stock is not yet available. Those private stock doses used on VFC eligible children can later be replaced when VFC stock becomes available. This one-directional borrowing exception is unique to seasonal influenza vaccine.*

Please submit all borrowing forms to the ISDH Immunization Division via e-mail (immunize@isdh.in.gov) or fax (317-233-3719). Consult the Borrowing Vaccine policy of the Publicly Funded Vaccine Programs Policies and Procedures Manual for additional information.

5 VACCINE WASTE/EXPIRED PROCEDURES

Vaccine Waste/Expired Procedures

Vaccine that has been deemed expired, spoiled or wasted should be immediately removed from the vaccine storage unit and labeled as wasted vaccine. Do not discard these vaccines. **All providers collaborating with the Immunization Division to vaccinate the citizens of Indiana are required to document and report all incidents of vaccine loss and wastage.** Follow the ISDH Immunization Division Policy for "Vaccine Returns" to complete a return in VTrckS system. Report all loss or wastage ≥ 5 doses. Upon submission of vaccine return in VTrckS or VOMS, you will receive a shipping label. As of 2015, return shipping labels are e-mailed to the primary VFC contact.

It is imperative that VFC coordinators routinely provide updated contact information to the ISDH Immunization Program to ensure they receive communication from the Division including return labels.

Providers must complete a Vaccine Return transaction via VTrckS or VOMS within **30 days** of vaccine loss. **All returns must be completed within six months after the product expiration or waste date.**

Providers reporting expired/spoiled vaccines will receive a return label via e-mail within 24 hours of approval. See the next page for details on vaccines that should be returned to McKesson and what cannot be returned to McKesson. All expired VFC vaccines must be returned to McKesson for excise tax credit.

The following should NOT be returned to McKesson:

- Used syringes, with or without needles;
- Broken vials;
- Wasted products such as a syringe that was drawn up but not used;
- Any multi-dose vial from which some doses have been withdrawn;
- IG, HBIG, PPD;
- Diluent (expired or not expired); or
- Private-purchased vaccine.

If you have any questions, please contact the ISDH Immunization program by telephone at 800-701-0704 or via e-mail at immunize@isdh.in.gov.

6 APPENDICES

The following documents are available.

- Vaccines Storage and Emergency Response Plans
- VFC Training Log
- VFC Equipment Routine Maintenance Log
- VFC Resources
- VFC Educational Resources
- Vaccine Borrowing Report

VACCINE EMERGENCY MANAGEMENT PLAN

Post on the outside of each refrigerator and freezer

Practice Name		**PIN**	
Name of Person Completing Emergency Response Plan			
Signature of Person Completing Emergency Response Plan		**Date Emergency Response Plan Reviewed & Updated**	
Primary Person Responsible			
Phone Number (Work and Home/Cell Phone)			
Secondary Person Responsible			
Phone Number (Work and Home/Cell Phone)			
Person with 24-hour Access			
Phone Number (Work and Home/Cell Phone)			

Ensure primary and secondary contacts are on a notification list for practice-based power outages.

For a Power Outage: If you do not have a generator, identify one location with a generator (hospital, 24-hour store, etc.). Before transporting, call back-up location to ensure their generator is working.

1. Location and Contact Name	
Phone Number	
2. Location and Contact Name	
Phone Number	

Vaccines must be transported in an insulated cooler with a barrier separating the vaccine from the ice/cold packs. Frozen vaccines should only be transported or shipped in an emergency and according to the VFC Vaccine Storage and Handling Toolkit (http://www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf).

Emergency Contacts:

Refrigeration Company	
Phone Number	
Utility Company	
Phone Number	
Other – Describe	
Phone Number	

OTHER RESOURCES:

District Field Representative	
Phone Number and E-mail	
Educator	
Phone Number and E-mail	

If temperature excursions are noted, please notify your District Field Representative.

Indiana State Department of Health
Immunization Division

VFC Training Log

Practice Name		PIN	

All VFC vaccine coordinators are required to complete and maintain documentation of receiving annual VFC education on vaccine storage and handling. Education is available through VFC compliance site visits, VFC educational visits, Immunizations A to Z or through CDC online training, "You Call The Shots – Module 10 – Storage and Handling and Module 16 – Vaccines for Children Program," available at http://www2a.cdc.gov/nip/isd/ycts/mod1/ courses/sh/ce.asp. Document all training and retain copies of certificates of completion or certificates of attendance. Copies of training certificates or the training log must be provided at the annual enrollment.

Date of Training	Vaccine Coordinator Name	Training Attended	Training Provided By	Training Focus

VFC Equipment Routine Maintenance Log

Practice Name		**PIN**	
VFC Storage Unit – Name or Location			

Keep a **logbook** to indicate the date(s) of routine maintenance tasks, date(s) of any repairs or servicing, and the name of the person and/or company performing each of these tasks.

Date	**Type of Maintenance** (Routine, Service Call)	**Person/Company Performing Maintenance**	**Repair or Service Performed**	**Notes**

VFC Resources

Indiana State Department of Health, Vaccines for Children: http://www.state.in.us/isdh/25937.htm

E-mail: Immunize@isdh.in.gov

Telephone: 800-701-0704

Children and Hoosier Immunization Registry Program (CHIRP): https://chirp.in.gov/

- Questions about using CHIRP, patient records, adding shots, or running reports:
  E-mail: chirp@isdh.in.gov
  Telephone: 888-227-4439

American Academy of Pediatrics – Storage & Handling Guides:
http://www2.aap.org/immunization/pediatricians/storageandhandling.html

Centers for Disease Control and Prevention (CDC): www.cdc.gov/vaccines/

- Healthcare Professionals/Providers Vaccine & Immunization Information: http://www.cdc.gov/vaccines/hcp.htm
- Immunization Courses: http://www.cdc.gov/vaccines/ed/courses.htm
- "Keys to Storing and Handling Your Vaccine" video: http://www2.cdc.gov/vaccines/ed/shvideo/
- Vaccine Storage and Handling "You Call The Shots – Module 10 – Storage and Handling and Module 16 – Vaccines for Children Program": http://www.cdc.gov/vaccines/ed/youcalltheshots.htm
- Immunization of Health-Care Personnel (HCP): http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf
- Immunization Schedule for Children and Adolescents: http://www.cdc.gov/vaccines/schedules/index.html
- Vaccine Information Statements: http://www.cdc.gov/vaccines/hcp/vis/index.html
- Vaccine Administration Protocols: Pink Book Appendix D: www.cdc.gov/vaccines/pubs/pinkbook/index.html
- Vaccine Adverse Event Reporting System and how to report: http://vaers.hhs.gov/esub/index
- Vaccine Contraindications: www.cdc.gov/vaccines/recs/vac-admin/contraindications.htm
- Vaccine Storage and Handling Toolkit: http://www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf

Indiana Immunization Coalition: http://vaccinateindiana.org/

Immunization Action Coalition (IAC): www.immunize.org

- Immunization Action Coalition (IAC) E-mail Subscriptions: http://www.immunize.org/subscribe/